

been induced to make it a visit. Though he had seen collections of casts of fossils and skeletons in the museums of colleges and other institutions, from Prof. Ward's establishment, he had not been prepared to find it so extensively representing all departments of natural history as it proved to be, and even in Europe he had seen no dealer's stock that was equal to it. For the variety of its objects, and the excellence of preservation and preparation of the specimens, he recommended it to the Academy and to others as a source from whence to supply the wants and deficiencies of their cabinets. The collection of skeletons is large, and is admirable for the cleanness, whiteness, and perfect mounting of the specimens. A few thousand dollars expended in this department would be of much importance to the museum of the Academy. A collection of glass models of invertebrate animals, made by Leopold Blaschka, of Dresden, had especially attracted his attention. The models are remarkable for their accuracy and beauty, and they supply a means of illustration which has long been felt. They represent soft and delicate forms which cannot be satisfactorily preserved, and others too minute to be examined with the naked eye. Moreover their price is so moderate, that it is to be hoped that the Academy may make early provision to obtain a series. Prof. L. exhibited specimens, such as the Red Coral, *Corallium rubrum*, of the natural size and magnified; the hydroid polyp, *Hydractinia echinata*, which lives on the shell of the Hermit Crab, etc. Prof. L. added that at the present time when society was awakened to the importance of the study of natural history, Prof. Ward was worthy of the highest commendation for the ability and energy he had displayed in accumulating so ample a means for its illustration.

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OCTOBER 28.

The President, Dr. RUSCHENBERGER, in the chair.

Forty-nine persons present.

The following papers were presented for publication:—

“Revision of the Palæocrinoidea, Part I., the Families Ielthyocrinidae and Cyathocrinidae,” by Charles Waehsmuth and Frank Springer.

“A Comparison of the Eocene Mollusca of the Southeastern United States and Western Europe in relation to the determination of identical forms,” by Angelo Heilprin.

The death of William H. Gumbes, a member, was announced.

*Variations in Thuja and Retinospora.*—Mr. THOMAS MEEHAN referred to his observations reported to the Academy many years

ago, showing that the plant known in gardens as *Thuja ericoides* was but a form of arbor vitæ that had carried its juvenescent condition through life, instead of changing its character for the "adult" condition after its first three months of existence, as arbor vitæ generally do. Out of a large number of trees of this form that had been growing on his grounds for fifteen years, one had assumed the normal adult condition. Since he had first recorded his observations, most of the leading botanists had come to regard these plants as he did, and there seemed no need of further evidence; but this changed plant had now produced fruit for the first time, specimens of which he exhibited. It was exactly *Thuja occidentalis*. These juvenescent forms after fifteen years' growth had shown only this single disposition to assume the final or adult condition or to flower. He also exhibited a similar juvenescent form known as *Retinospora squarrosa*, one plant of which out of some hundreds had developed to *Retinospora obtusa*. In the case of the arbor vitæ the change from the juvenescent to the adult form was gradual; in *Retinospora* it was by a single leap. Each condition had its separate color, and separate chemical principles, the latter point having been called to Meehan's observation by Dr. Sterry Hunt; but this was characteristic of all such morphological changes. There was a difference in the rind of orange and in its pulp,—in the flesh of the peach and in its kernel, though all were morphologically the same. It was, however, worth remembering that with morphological changes there was often change in cell structure, as well as in sensible properties. Mr. Meehan further called attention to the almost identical characters of the two juvenescent forms exhibited—while in the adult they were so widely divided—for there were in all Coniferæ probably no two genera better marked in the characters derived from their fructification than *Retinospora* and *Thuja*.

Russell S. Hill was elected a member.

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NOVEMBER 4.

The President, Dr. RUSCHENBERGER, in the chair.

Thirty-four persons present.

A paper entitled "On the Pacific Species of *Caulolatilus*," by W. N. Lockington, was presented for publication.

The following were ordered to be printed:—